

REMARKS

Claims 1-68 are pending in the present application. Claims 1, 3, 4, 6-8, 12-20, 22, 28-37, 40-42, 46-51, 56, 59, 65 and 67 have been amended. Claims 1, 4, 6 and 12 have been amended to include the size distribution of the agglomerated particles of up to 120 microns, with a Dv.50 within the range of from 15 to 75 microns. Support for this amendment can be found in the specification on page 1, lines 17-20. Amendments to the other claims are editorial and are supported by the specification. No new matter has been added. Reconsideration of the present application in view of the foregoing amendments and in view of the following remarks is respectfully requested.

I. Dv.99, Dv.50 and Particle Size

Applicant submits that the recited Dv.99, Dv.50 and particle size of the agglomerated particles have probative value because the agglomerated particles are only partially fused or bonded together thereby allowing them to exhibit the recited properties.

As stated in the specification on page 21, lines 21 to 24 “[t]he composite particles produced may be likened to raspberries with the individual particles of the raspberry (the drupels) bonded to one another, although the “drupels” are of different sizes, and there will of course also be “raspberries” of different composition and different sizes in the powder as a whole.” The term “fused” in the present application denotes partial fusion of the particles since “inspection of a fused agglomerated powder under an electron microscope shows that one particle is bonded to another and that the individual particles in the composites are more rounded than prior to agglomeration.” (Specification at page 21, lines 24-27). Further support for the term “fused” denoting partial fusion of the particles can be found in the manner in which they are

formed. According to the specification at page 20, lines 25 to 27, the composite particles may be formed by mechanofusion at a temperature in the range of from 60 to 80°C. One of skill in the art will understand that the particles are softened at this temperature and stick together, but are not completely melted.

Applicant submits that the individual particulate components remain identifiable in the agglomerates because the particles do not completely fuse together in the sense that they are absorbed one within the other. Rather, it is still possible to identify the different particles making up the composite although the different particles are fused to one another.

II. The Rejections based on 35 U.S.C. § 102 and/or §103

(a) Morgan et al. (EP 0372860, EP 045948 or US 5,319,001)

Claims 1-29, 31, 34, 35, 37-57 and 59-68 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Morgan *et al.* (EP 0372860, EP 0459048 or US 5,319,001). Claims 1-68 stand rejected under 35 U.S.C. § 103(a) as obvious over Morgan *et al.* (EP 0372860, EP 0459048 or US 5,319,001). Applicant traverses the rejections.

The Morgan *et al.* patents disclose coating compositions that may be mixtures of two or more color powder coating compositions, optionally with an uncolored powder coating composition, in which the particle size of both the color and optional uncolored powder coating compositions have a Dv.99 in the range of 0.5 to 15 microns (EP 0372860 at page 3, lines 23-27; EP 0459048 at page 3, lines 20-24; US 5,319,001 at column 3, lines 17-25). The Morgan *et al.* patents also disclose that if electrostatic mixing is used to prepare the coating compositions, particle sizes of up to 20 microns for the color powder coating compositions can be used,

although particle sizes in the range of 1.5 to 10 microns are preferred (EP 0372860 at page 4, lines 52-54; EP 0459048 at page 4, lines 49-51; US 5,319,001 at column 5, lines 46-50).

Unlike the presently claimed invention, the Morgan *et al.* patents do not teach or suggest an uncolored film-forming component having a Dv.99 that is more than 20 microns and a higher Dv.99 or higher Dv.50 than the colored component. There is no mention of the specific combination of components or the specific ratios as recited in Applicant's claims. At best, the Morgan *et al.* patents disclose an optional uncolored powder coating component. In direct contrast, the presently claimed invention is directed to a high ratio, e.g. 40 to 99 percent by weight, of one or more uncolored film-forming components. The use of a high proportion of an uncolored film-forming component(s) allows for easy adjustment of the polymer/pigment ratio in the composition (Specification at page 6, lines 3-6). Thus, different combinations of colored and uncolored components may be selected from the kit of the present invention to prepare a final composition with the appropriate polymer/pigment ratio for the opacity of the coating desired. This is not taught in the Morgan *et al.* patents, nor is there any disclosure or suggestion in the Morgan *et al.* patents of using any combination of components, which have different particle sizes. Use of larger-sized uncolored components and maximizing the amount thereof, provides cost advantages (Specification at page 10, lines 23 to 24).

The present invention provides flexibility to a manufacturer when preparing powder coating compositions. For example, a manufacturer using a kit of the present invention has base compositions from which he/she can choose the desired combination of colored and uncolored components to give the desired polymer/pigment ratio, and by using different uncolored components he/she can also obtain different results (Specification at page 10, line 25 to page 11, line 9; page 12, lines 19 to 25). Thus, the manufacturer will have the option of preparing

reduced-gloss finishes by choosing a particular (incompatible) uncolored component (Specification at Example 2, which utilizes uncolored Component E), or the option of preparing other finishes, for example a textured finish (Specification at Example 3, which utilizes uncolored Component F) or a pearlescent effect (Specification at Example 4, which utilizes uncolored Component G), and the ability to obtain other performance results (Specification at Example 5, which utilizes uncolored Component J, allowing tribostatic application; Example 6, which utilizes uncolored Component K, including a further (compatible) resin system giving different performance characteristics).

Thus, for example, unlike the presently claimed invention, there is no teaching or suggestion in the Morgan *et al.* patents of an uncolored film-forming component that is incompatible with the colored film-forming components or that becomes incompatible with the colored film-forming components during film-formation and that has a Dv.99 of more than 40 microns but not more than 90 microns. In direct contrast to that embodiment of the presently claimed invention, the Morgan *et al.* patents disclose that the color powder coating compositions used should have similar rheological properties to one another so that they flow and level to the same extent when the powder coating is applied to a substrate, and are preferably based on the same binder system making them of similar composition (EP 0372860 at page 3, lines 35-39; EP 0459048 at page 3, lines 32-36; US 5,319,001 at column 3, lines 40-48). As stated in the present specification, two systems of similar chemistry and approximately the same gel time are compatible (Specification at page 2, lines 8-11). Thus, the Morgan *et al.* patents teach away from this embodiment of the presently claimed invention since the Morgan *et al.* patents teach the use of compatible components. In Applicant's claim 59, for example, the kit recited

comprises an incompatible component or component that generates incompatibility, which can be used to obtain a matting effect.

There is no motivation or suggestion in the Morgan *et al.* patents or in the knowledge available to one of skill in the art to modify the Morgan *et al.* patents, nor is there any reasonable expectation of successfully modifying the Morgan *et al.* patents to arrive at the presently claimed invention. The Morgan *et al.* patents are directed to storing a limited number of basic colored compositions from which a manufacturer can prepare a wide range of colors on demand. There is no motivation or suggestion in the Morgan *et al.* patents to manufacture final compositions with particular finishes and performance characteristics and with particular polymer/pigment ratios. It is surprising and unexpected that the powder coating composition of the present invention comprises an uncolored component(s) having a Dv.99 that is more than 20 microns, a Dv.99 or Dv.50 that is higher than the colored component(s), that can be present in the claimed high ratio of up to 99 percent and yet is still not separately visible in the resulting agglomerate so that the composition gives the appearance of a single color (Specification at page 10, lines 12-24). Therefore, there is no basis to conclude that the present invention would have been obvious over these references.

(b) Seo et al. (US 6,130,281)

Claims 1-29, 31, 32, 34, 35, 37-56, 61 and 63-68 stand rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Seo *et al.* (US 6,130,281). Claims 1-56, 58 and 61-68 stand rejected under 35 U.S.C. § 103(a) as obvious over Seo *et al.* (US 6,130,281). Applicant traverses the rejections.

The presently claimed invention is directed to a powder coating composition comprising composite powder particles that are an agglomerate of individual particulate components fused

or bonded together. Unlike the presently claimed invention, Seo *et al.* teaches a powder coating composition and a method of making a powder coating composition by a conventional melt kneading, cooling and pulverizing process, with the removal of finely-divided particles using a classifier, to produce single particles and not composites (Seo *et al.* at column 5, line 61 to column 6, line 3). Moreover, the powder coatings of the presently claimed invention comprise a colored film-forming component(s) and an uncolored film-forming component(s). Unlike the presently claimed invention, Seo *et al.* discloses only colored compositions (Seo *et al.* at Example 1, column 7, line 61; Example 6, column 9, line 65; Example 15, column 13, lines 13-14).

In direct contrast to the present invention, Seo *et al.* fails to teach or suggest an agglomeration of individual particulate components, the use of an uncolored film-forming component(s) and the preparation of uncolored powders. In addition, Seo *et al.* fails to teach or suggest an uncolored film-forming component having a Dv.99 of more than 40 microns and of an incompatible component as recited in Applicant's claims.

Seo *et al.* provides no motivation or suggestion to agglomerate the individual particulate components, or to add an uncolored film-forming component(s) or an incompatible component. Seo *et al.* is directed to a powder coating that forms a coating film having a uniform thickness even on an object having a complicated shape (Seo *et al.* at column 1, lines 57-60). The present invention is directed to a powder coating composition of reduced cost, which is achieved by using the specified combination of colored and uncolored components, and to the production of coatings with additional desirable attributes without affecting color by selection of particular uncolored components (Specification, for example, Components E, F, G, J and K in the Examples). Since Seo *et al.* and the present invention are directed to solving different problems

in the art, one of skill in the art would not be motivated to modify Seo *et al.* or look to Seo *et al.*, which teaches obtaining a film of uniform thickness, to arrive at Applicant's powder coating composition to produce coatings or films having particular performance attributes or appearances, such as glosses or other finishes. Therefore, there is no basis to conclude that the present invention would have been obvious over this reference.

(c) Itakura et al. (US 6,146,145)

Claims 1-29, 31,34, 35, 37-56, 61 and 63-68 stand rejected under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Itakura *et al.* (US 6,146,145). Claims 1-31, 34, 35, 37-56, 58 and 61-68 stand rejected under 35 U.S.C. § 103(a) as obvious over Itakura *et al.* (US 6,146,145). Applicant traverses the rejections.

Unlike the presently claimed invention and similar to Seo *et al.*, Itakura *et al.* fails to teach or suggest an agglomeration of individual particulate components. Rather, Itakura *et al.* is directed to a color matching method that is characterized by blending powder coatings in a plurality of colors, and dryblending the powder coatings using a mixer, to produce a color-matched powder coating (Itakura *et al.* at column 2, lines 33-41). Itakura *et al.* also fails to teach or suggest powder coatings comprising a colored film-forming component(s) and an uncolored film-forming component(s) having the particle sizes as recited in Applicant's claims. In addition, Itakura *et al.* fails to teach or suggest the use of an incompatible component or a component that generates incompatibility. In direct contrast to the presently claimed invention and similar to the Morgan *et al.* patents, Itakura *et al.* teaches that the powder coatings are preferably formed of binder resins that are superior in compatibility with each other, and more preferably are formed of the same binder resin (Itakura *et al.* at column 3, lines 49-52). Thus, Itakura *et al.* teaches away from the presently claimed embodiments of the present invention.

There is no motivation or suggestion in Itakura *et al.* or in the knowledge available to one of skill in the art to modify Itakura *et al.* to arrive at the presently claimed invention. There is no motivation or suggestion in Itakura *et al.* to agglomerate the individual particulate components or to add the recited uncolored components of Applicant's claims to obtain coatings/films with particular attributes. Itakura *et al.* is directed to a method of color-matching powder coatings in which a broad range of colors are reproduced (Itakura *et al.* at column 2, lines 10-16). As stated above, the present invention is directed to a powder coating composition comprising composite powder particles that are an agglomerate of individual particulate components comprising an uncolored component of particular particle size and proportion, which produces coatings/films with particular attributes economically, rapidly and with flexibility (Specification at page 12, lines 19 to 25; page 13, lines 8 to 12). Specifically, the powder coating composition of the present invention can produce coatings/films with special finishes, e.g., reduced-gloss finishes can be achieved by using incompatible components or components that generate incompatibility (Specification at page 11, lines 21-26) or textured or pearlescent finishes (Specification at page 10, line 25 to page 11, line 9) as well as coatings/films with different performance characteristics (Specification at page 12, lines 19 – 25 and Components J and K in the Examples).

Since Itakura *et al.* and the present invention are directed to solving different problems in the art, one of skill in the art would not be motivated to modify Itakura *et al.* or look to Itakura *et al.*, which teaches a color matching method to reproduce colors in which the components of the powder coating are merely blended, to arrive at Applicant's powder coating composition to produce coatings/films having particular performance attributes or appearance, such as glosses or finishes. Moreover, like the Morgan *et al.* patents, Itakura *et al.* teaches away from Applicant's recited claims of adding different uncolored components to achieve different results, e.g., adding

an incompatible component or a component that generates incompatibility to achieve a matting effect. It is well known that a reference that teaches away from the claimed invention cannot render it obvious. MPEP § 2145.

Applicant respectfully submits that all of the prior art references fail to teach or suggest, whether alone or in combination, the presently claimed invention.

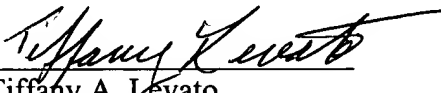
CONCLUSION

Applicant believes that the present application is now in condition for allowance.

Favorable consideration of the application as amended is respectfully requested.

The Commissioner is authorized to charge any fee due, or credit any overcharge, to
Deposit Account No. 16-2500 to maintain the pendency of the present application.

Respectfully submitted,
Proskauer Rose LLP

By: 
Tiffany A. Levato
Reg. No. 50, 160

Date: April 5, 2004

Proskauer Rose LLP
Patent Department
1585 Broadway
New York, NY 10036-8299
(212) 969-3686
Fax (212) 969-2900